

REMARKS

Claims 11 to 34 are now pending and being considered.

Reconsideration is respectfully requested for the reasons set forth below.

Claims 11 to 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application 2002/0011925 ("Hahn") in view of U.S. Patent No. 5,645,093 ("Kinoshita").

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Also, as clearly indicated by the Supreme Court in *KSR*, it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed. *See KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that "rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Id.*, at 1396. Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

As an initial matter, claim 13 corresponds to claims 1 and 3 of granted European Patent Application EP 1 565 347 B1. It is therefore respectfully submitted that claim 13 is allowable for essentially the same reasons and for the further reasons explained herein.

As to independent claim 11, it includes the feature in which the "at least one optical warning is generated at least prior to the at least one object becoming visible to the driver."

Independent claim 18 includes the similar feature of “generating the at least one optical warning ... at least prior to the at least one object becoming visible to the driver.” In this regard, the specification of the present application specifically discloses that among other sensors, it includes at least one image-sensor system for generating optical information to detect objects in the driver’s blind spots which would not be directly visible to the driver.

In fact, the specification specifically discloses at least one image-sensor system for detecting a pedestrian in the front blind spot of a truck, stating (with emphasis added):

For example, pedestrians who stop directly in front of a truck **cannot be directly seen by the driver of the truck**. The high, recessed sitting position of the truck driver sharply **limits the view of the driver in this surrounding region**. The use of at least one image-sensor system for monitoring these surrounding regions of the motor vehicle allows the driver to be informed of the existence of an object in this region by at least one optical warning.

(Specification, paragraph [0008], emphasis added).

Thus, the feature of “at least prior to the at least one object becoming visible to the driver” includes objects that are impeded by physical obstructions (i.e., a driver’s blind spots) -- which may be monitored to detect **before they become visible to the driver**.

While the rejections may not be agreed with, to facilitate matters, claims 11 and 18 have been rewritten herein without prejudice to explicitly recite this feature and to better clarify the claimed subject matter. In particular, claims 11 and 18 now provides that *the at least one optical warning is generated even if a visibility of the at least one object is impeded by a physical obstruction*.

It is respectfully submitted that the “Hahn” reference by itself, or in combination with “Kinoshita” reference, does not disclose, or even suggest, the feature of generating an optical warning even if the visibility of the at least one object is impeded by a physical obstruction, as any review of the cited references makes plain.

As previously explained, according to the “Hahn” reference, “[a]n object of the present [system] is to find a method and a device which is suitable for carrying out a method for controlling the attention of an operator of technical equipment.” (“Hahn” reference, paragraph 6). To accomplish this objective, the “Hahn” reference purportedly “provides a method for **controlling the attention** of an operator of technical equipment, having a display device for displaying action-relevant information in the form of images or symbols,

the duration of the display of the specific image or symbol lying below a conscious and above an unconscious perception threshold of the operator.” (“Hahn” reference, paragraph 7).

The “Hahn” reference asserts that this system provides advantages including “that the operator does not need to turn his/her view away from the scene to be monitored and in that he/she is not unnecessarily disturbed by the representation of information.” (“Hahn” reference, paragraph 9). Thus, the “Hahn” system is purportedly concerned with *improving the organization and presentation of information to the driver or operator*.

In this regard, the “Hahn” reference refers to examples (Figures 3 and 4) of how this information can be organized and presented to the driver. Paragraphs 32 and 33 of the “Hahn” reference refer to types of information that can be provided to drivers:

FIG. 3 shows for example the image as in FIG. 2 but solely showing an overlay to be projected on windshield 22 for a period of time lying below a conscious and above an unconscious perception threshold of the operator. Only automobiles 201, 202, and 203 are enhanced in this version.

FIG. 4 shows an alternative to the overlays of FIG. 3, with arrows 320 enhancing automobile 301, frame 321 enhancing automobile 302 and underlining 322 enhancing automobile 303. Street 310 may be enhanced by overlay, for example, or not enhanced. Arrows 320, frame 321 and underlining 322 are displayed for a period of time lying below a conscious and above an unconscious perception threshold of the operator.

All of the “information” provided to drivers (as in the “Hahn” reference, and as shown in the figures) relates to objects *already visible to the driver* (i.e., capable of being seen), such as automobiles 201, 202, 203, 301, 302, and 303, and street 310, which are clearly not impeded by a physical obstruction.

Any speculation that the sensors in “Hahn” reference could somehow detect and display information about objects before they are visible to the driver, as provided in the context of claim 8, as presented, is unsustainably beyond the scope of the “Hahn” reference. For instance, with respect to the example provided above of the pedestrian in the *blind spot* of a truck, nothing in the “Hahn” reference supports that a driver would be alerted in such a situation until perhaps *after it is already visible (i.e., capable of being seen) to the driver*.

Accordingly, the “Hahn” reference fails to disclose, or suggest, generating an optical warning even if the visibility of the object is impeded by a physical obstruction.

This is because the purported purpose of the “Hahn” system relates to improving the organization and presentation of information to the driver. Even if the “Hahn” reference did *enhance, underline, or overlay* the object with cues “lying below a conscious and above an unconscious perception threshold of the operator,” this is after it is already visible to the driver. Indeed, the “Hahn” reference states that the “action-relevant information is advantageously displayed in the form of light spots which are *superimposed* on the images of the actual objects *in the field of vision of the driver*.” (“Hahn” reference, paragraph 20 (emphasis added)).

Thus, under “Hahn,” for something to be highlighted, it first must be visible to the driver and thus not impeded by a physical obstruction. If the “Hahn” system actually contemplated distinguishing objects not yet visible to the driver, “Hahn” would have been able to filter out other information presented to the driver so that the driver would not be disturbed by the representation of information without the need for subconscious cues.

Instead of focusing on improving the organization and presentation of voluminous amounts of potentially “unnecessary” information to the driver, the presently claimed subject matter effectively eliminates the need for the “Hahn” system by focusing on warning a driver of those objects in the vicinity of the vehicle that are not yet visible to the driver. The presently claimed subject matter relates to distinguishing between objects in the vicinity of the vehicle detected before being visible to the driver, and this greatly reduces the volume of information presented to the driver, so as to obviate the “Hahn” system.

Even if the sensor in “Hahn” did detect a pedestrian in the darkness, it does not disclose the feature that this is done “*prior to the at least one object becoming visible to the driver, and the at least one optical warning is generated even if the visibility of the at least one object is impeded by a physical obstruction*”, as provided for in the context of the claimed subject matter. This is because, the pedestrian in “Hahn” is visible to the driver, so that the “Hahn” system merely **alerts** the driver to the presence of a visible pedestrian. For example, cited paragraph [0019] states the following:

[T]he present invention will be exemplarily explained within the framework of its use for **controlling the attention** of vehicle drivers...it is particular[ly] advantageous to use the method ... for **improving** night vision.... the objects to which

attention is to be drawn are at least partially obtained by evaluating infrared sensor data. Thus, it is possible to **draw the driver's attention** to pedestrians which are detected in this manner also in darkness even before danger to them can be **reliably** established.

(“Hahn”, paragraph [0019] (emphasis added)).

Accordingly, as characterized, “Hahn” *improves* night vision by bringing the pedestrian to the *attention* of the driver. By alerting the driver of the pedestrian in the dark, it makes the image of the pedestrian *more reliable*. (See “Hahn” reference, paragraph [0019]). At best, this merely increases the likelihood that something that is already visible is seen by the driver. Nothing in “Hahn” discloses or suggests the feature in which an object is “*prior* to the at least one object becoming *visible* to the driver”, as provided for in the context of claim 11, as presented.

Claim 11 specifically provides at least one optical warning to be generated at least *prior* to the at least one object becoming *visible* to the driver. Accordingly, to the extent the Office may be likening of a truck’s blind spot (which is clearly not *visible* to the driver) to a “pedestrian [who] might not yet have been *seen* by the driver” is inaccurate. Indeed, “Hahn” specifically states that “action-relevant information is advantageously displayed in the form of light spots which are *superimposed* on the images of the actual objects in the field of vision of the driver.” (“Hahn,” paragraph [0020]). Thus, in “Hahn” the driver is alerted to objects that are already visible, so that they are seen by the driver.

In this regard, in *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 U.S.P.Q. 698 (Fed. Cir. 1983), Nortron argued that Schenck’s system was obvious in that it replaced four bolted pieces with “a single integral and gaplessly continuous piece.” *Id.* The prior art perceived a need for mechanisms to dampen resonance, but the inventor eliminated the need for dampening altogether. The Court held that “[b]ecause that insight was contrary to the understandings and expectations of the art, the structure effectuating it would not have been obvious to those skilled in the art.” *Schenck*, 713 F.2d at 785.

The insight as to the presently claimed subject matter provides the ability to distinguish objects that are detected *before being visible to the driver*. This is contrary to the “Hahn” reference, since it is directed to methods of providing information about objects to drivers to avoid overloading the driver with information.

The secondary "Kinoshita" reference does not cure -- and it is not asserted to cure -- this critical deficiency.

Therefore, claims 11 and 18 are allowable, as are their respective dependent claims.

As further regards all of the obviousness rejections, any Official Notice is respectfully traversed to the extent that it is maintained and it is requested that the Examiner provide specific evidence to establish those assertions and/or contentions that may be supported by the Official Notices under 37 C.F.R. § 1.104(d)(2) or otherwise. In particular, it is respectfully requested that the Examiner provide an affidavit and/or that the Examiner provide published information concerning these assertions. This is because the § 103 rejections are apparently being based on assertions that draw on facts within the personal knowledge of the Examiner, since no support was provided for these otherwise conclusory and unsupported assertions. (See also MPEP § 2144.03).

Accordingly, claims 11 to 34 are allowable, and it is therefore respectfully requested that the obviousness rejections of claims 11 to 34 be withdrawn.

CONCLUSION

In view of the foregoing, all of pending claims 11 to 34 are allowable. It is therefore respectfully requested that the rejections (and any objections) be withdrawn. Prompt reconsideration and allowance of the present application are therefore respectfully requested.

Respectfully submitted,
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